

## DOCUMENT RESUME

ED 313 797

EA 021 479

TITLE Effective Schools Programs: Their Extent and Characteristics. Briefing Report to the Chairman, Committee on Education and Labor, House of Representatives.

INSTITUTION General Accounting Office, Washington, D.C. Div. of Human Resources.

REPORT NO GAC/HRD-89-132BR

PUB DATE Sep 89

NOTE 62p.

AVAILABLE FROM U.S. General Accounting Office, P.O. Box 6015, Gaithersburg, MD 20877 (first 5 copies, free; additional copies, \$2.00 each prepaid by cash or by check or money order made out to Superintendent of Documents).

PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC03 Plus Postage.

DESCRIPTORS Academic Achievement; \*Educational Change; \*Educational Development; Educational Environment; \*Educational Improvement; Educational Policy; Elementary Secondary Education; Equal Education; Government Publications; \*Instructional Leadership; National Surveys; \*School Districts; \*School Effectiveness

## ABSTRACT

A national study of effective schools programs provides information on the extent and characteristics of these programs in the nation's school districts and schools. A questionnaire was mailed to a random sample of 1,685 school district superintendents. Findings are representative of the approximately 16,000 local school districts in the nation. This report is divided into eight appendices: (1) selected characteristics of effective schools cited in research literature; (2) five school characteristics in the definition of effective schools programs included in Public Law 100-297; (3) Chapter 2 Block Grant Program (six authorized local targeted assistance programs); (4) estimates and confidence intervals for selected questionnaire responses; (5) effective schools programs in the 50 largest cities (school year 1987-88); (6) examples of SEA assistance to school districts and schools for effective schools programs; (7) tables supporting figures in report text and supplementary tables; and (8) major contributors to this report. Included are 15 tables and 28 figures. (SI)

\*\*\*\*\*  
\* Reproductions supplied by EDRS are the best that can be made \*  
\* from the original document. \*  
\*\*\*\*\*

GAO

United States General Accounting Office

Briefing Report to the Chairman,  
Committee on Education and Labor,  
House of Representatives

September 1989

# EFFECTIVE SCHOOLS PROGRAMS

## Their Extent and Characteristics



EA 021 479

U.S. DEPARTMENT OF EDUCATION  
Office of Educational Research and Improvement  
EDUCATIONAL RESOURCES INFORMATION  
CENTER (ERIC)

This document has been reproduced as  
received from the person or organization  
originating it.

Minor changes have been made to improve  
reproduction quality.

Points of view or opinions stated in this docu-  
ment do not necessarily represent official  
OERI position or policy.

GAO HRD-89-132BR

## Human Resources Division

B-235384

September 13, 1989

The Honorable Augustus F. Hawkins  
Chairman, Committee on Education and Labor  
House of Representatives

Dear Mr. Chairman:

You requested that we conduct a national study of effective schools programs to provide information on the extent and characteristics of these programs in the nation's school districts and schools. In subsequent discussions with your office, we agreed to (1) determine the number of school districts with effective schools programs, (2) identify common program characteristics and practices, (3) describe how school districts evaluate the effect of their programs on students' academic achievement, and (4) discuss federal requirements for evaluating these programs. You were particularly interested in the ability of school districts to provide insight on whether effective schools programs improved the academic achievement of low-income and minority children.

The Hawkins-Stafford Elementary and Secondary School Improvement Amendments of 1988 (P.L. 100-297) authorized Chapter 1 compensatory education funds and Chapter 2 educational improvement block grant funds to be used for funding effective schools programs. As you know, an effective schools program is a school-based program developed to improve the academic achievement of all children in a school, regardless of socioeconomic background or ethnicity, and in particular educationally deprived children.<sup>1</sup> Effective schools programs, like other school improvement efforts, have become increasingly common as the educational reform movement has burgeoned during the 1980s.

Effective schools programs seek to develop or improve on school characteristics that have been identified in research as associated with high student achievement. Public Law 100-297 specifies five such characteristics that these programs should seek to achieve. They are (1) strong and effective administrative and instructional leadership, (2) emphasis on the acquisition of basic and higher-order skills, (3) a safe and orderly school environment, (4) a climate of expectations that virtually all children can learn under appropriate conditions, and (5) continuous assessment of students and programs to evaluate the effects of instruction.

<sup>1</sup>The Department of Education defines educationally deprived children as children whose educational attainment is below the level that is appropriate for their age.

To collect the information in this report, we mailed copies of a questionnaire to a random sample of 1,685 school district superintendents. Our findings are representative of the approximately 16,000 local school districts in the nation. The questionnaire we used asked superintendents about effective schools programs operating in their schools during school year 1987-88. This report elaborates on the briefing we provided congressional staff on June 20, 1989.

## Many School Districts Operate Effective Schools Programs

To measure the overall number of districts and schools with effective schools programs, we asked district officials whether any of their schools operated school improvement programs based on the findings of effective schools research. District responses to our questionnaire indicate that about 41 percent or 6,500 of the nation's school districts had effective schools programs in operation in approximately 38,000 elementary and secondary schools during school year 1987-88. Many districts reported that their programs had been established recently; over half had effective schools programs that were first implemented during school years 1986-87 or 1987-88. An additional 17 percent or about 2,600 of the nation's districts have plans to implement effective schools programs during school years 1988-89 or 1989-90.

To provide the Congress with information on the extent to which effective schools programs include specific activities recommended by program experts, we measured the number of districts and schools with programs that met certain program criteria. About 27 percent or 4,300 of the nation's districts had effective schools programs in approximately 27,000 schools; these schools used (1) school teams on which teachers and administrators work together to plan and monitor their programs and (2) written plans for improving school effectiveness. Program experts recommend school teams and written plans to help foster school-based planning and decisionmaking.

When adding the criteria that districts also evaluate their effective schools programs by disaggregating (that is, analyzing separately) academic achievement data by student socioeconomic status or ethnicity, about 13 percent or 2,100 of the nation's school districts had such programs in approximately 18,000 elementary and secondary schools. Program experts consider this evaluation method particularly important because it permits schools and districts to specifically identify academic achievement gains made by low-income and minority children. Without disaggregating achievement data in this manner, a district could incorrectly interpret districtwide achievement gains as improvement among

---

all children, when, in fact, those gains were made by only some children, such as those from higher-income families.

---

### Which Schools Have Effective Schools Programs?

Effective schools programs operate in elementary and secondary schools at an average rate approximately commensurate with districts' average total percentage of elementary and secondary schools. For example: An average of about 53 percent of effective schools programs operate in elementary schools; similarly, elementary schools make up, on average, 52 percent of the total number of schools in the districts with programs. An average of about 20 percent of effective schools programs operate in high schools; similarly, high schools make up, on average, 21 percent of the total number of schools in the districts with effective schools programs. In addition, these programs commonly serve mixed enrollments of low-income and higher-income children.

### Which Districts Have Effective Schools Programs?

Effective schools programs are somewhat more likely to operate in large school districts, but are about as common in urban and nonurban areas. For example, although districts with enrollments of 10,000 students and over make up 4 percent of all U.S. districts, they account for about 8 percent of the districts with effective schools programs. These programs operate in urban school districts, including central city districts, at a rate nearly commensurate with the percentage of such districts in the nation.

### Many Districts Require Schools to Implement Effective Schools Programs

Our questionnaire results indicate that in half of all school districts with effective schools programs, some or all schools with the programs were required by their districts to implement them. In the other half of the districts with programs, schools voluntarily implemented them.

### Programs Frequently Developed and Implemented With External Assistance

School districts frequently receive external assistance in developing and implementing effective schools programs from state education agencies (SEAS), universities, federally funded regional educational laboratories, and other agencies or individuals outside school districts. Our questionnaire results indicate that about 64 percent of the districts with effective schools programs received such external assistance, most often from SEAS. We identified 31 SEAS that assisted districts and schools in developing or implementing effective schools programs.

---

## Program Evaluation— Districts Seldom Determine If Programs Help All Children

School districts reported using a variety of student performance measures, ranging from achievement tests to student dropout rates, to evaluate their programs' effect on academic achievement. When conducting these evaluations, however, school districts seldom determine whether the academic achievement of low-income or minority children is improved; this is because districts seldom disaggregate academic achievement data by student socioeconomic status or ethnicity.


Approximately 83 percent of all school districts with effective schools programs evaluate their programs using achievement tests, which typically measure basic language arts and mathematics skill levels or assess mastery of specific curriculum objectives. About 75 percent of these districts use nontest measures, which commonly include grades, dropout rates, attendance, and enrollment rates in advanced and remedial classes. Sixty-six percent of the districts with programs use both test and nontest measures.

Only about 12 percent of the districts with effective schools programs regularly disaggregate achievement test results by student socioeconomic status. An even smaller percentage (about 9 percent) do so by ethnicity. Approximately 22 percent of the districts disaggregate nontest measures by student socioeconomic status, and about 29 percent do so by ethnicity.

---

As requested by your office, we did not obtain official agency comments on this report. We did, however, discuss its contents with Department of Education officials and have incorporated their comments where appropriate. As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report for 7 days from its issue date. At that time, copies will be sent to the Secretary of Education and other interested parties. The major contributors to this report are listed in appendix VIII.

Sincerely yours,



William J. Gainer  
Director, Education and Employment Issues

---

# Contents

---

Letter	1
--------	---

---

Effective Schools	10
Programs: Their	10
Extent and	19
Characteristics	21
Background	25
Objectives, Scope, and Methodology	25
Many School Districts Operate Effective Schools	25
Programs	25
Which Schools and Districts Have Effective Schools	25
Programs?	25
School Characteristics Emphasized by Programs	30
Many Districts Require Schools to Implement Effective	32
Schools Programs	32
Districts Seldom Determine If Programs Help All Children	38
Federal Evaluation Requirements for Effective Schools	43
Programs	43

---

Appendix I	46
Selected	
Characteristics of	
Effective Schools	
Cited in Research	
Literature	

---

Appendix II	47
Five School	
Characteristics in the	
Definition of Effective	
Schools Programs	
Included in Public Law	
100-297	

---

Appendix III	48
Chapter 2 Block Grant	
Program: Six	
Authorized Local	



---

Targeted Assistance  
Programs

---

Appendix IV Estimates and Confidence Intervals for Selected Questionnaire Responses	49
--	----

---

Appendix V Effective Schools Programs in the Fifty Largest Cities (School Year 1987-88)	54
---	----

---

Appendix VI Examples of SEA Assistance to School Districts and Schools for Effective Schools Programs	55
--	----

---

Appendix VII Tables Supporting Figures in Report Text and Supplementary Tables	56
--	----

---

Appendix VIII Major Contributors to This Report	60
---	----

---



## Tables

Table VII.1: Extent of ESPs Meeting Criterion 1 in U.S. Districts (Data for Fig.9)	56
Table VII.2: School Years ESPs First Implemented (Data for Fig.10)	56
Table VII.3: Number of School Districts and Schools With ESPs by Program Criteria (Data for Fig.11)	56
Table VII.4: Use of School Teams and Written Plans	56
Table VII.5: Grade Level of Schools With ESPs (Data for Fig.13)	56
Table VII.6: Percent of Children on Free or Reduced-Price Lunch Served by ESPs (Data for Fig.14)	57
Table VII.7: Student Enrollment in Districts With ESPs and All U.S. Districts (Data for Fig.15)	57
Table VII.8: Geographic Area of School Districts With ESPs and All U.S. Districts (Data for Fig.16)	57
Table VII.9: School Characteristics Cited by Districts by Program Criteria (Data for Fig.17)	58
Table VII.10: School District Involvement in ESPs (Data for Fig.18)	58
Table VII.11: Source of External Assistance to Districts With ESPs (Data for Fig.20)	58
Table VII.12: Measures of Achievement Districts Used to Evaluate Results of ESPs (Data for Fig.24 and Related Information)	58
Table VII.13: Student Subgroups by Which Districts Disaggregated Achievement Test Results (Data for Fig.25)	59
Table VII.14: Student Subgroups by Which Districts Disaggregated Nontest Measures (Data for Fig.26)	59
Table VII.15: Percent of Children on Free or Reduced-Price Lunch Served by ESPs in Districts That Do Not Disaggregate Achievement Data by Student Socioeconomic Status (Data for Fig. 27)	59

## Figures

Figure 1: What Are ESPs?	10
Figure 2: How Schools Typically Implement ESPs	11
Figure 3: Characteristics Frequently Cited in Effective Schools	13
Figure 4: Federal Funds Authorized for ESPs	15
Figure 5: State Distribution of Chapter 2 Funds	17
Figure 6: Study Objectives	18

---

Figure 7: Methodology	19
Figure 8: Criteria Used to Measure Extent of ESPs	21
Figure 9: Extent of ESPs in U.S. Districts Meeting Criterion 1	22
Figure 10: Many ESPs Recently Implemented	23
Figure 11: Using Different Criteria, Extent of ESPs in U.S. Districts	24
Figure 12: Which Schools and Districts Have ESPs? (Criterion 1)	25
Figure 13: ESPs About as Likely at Each Grade Level	26
Figure 14: Socioeconomic Status of Children	27
Figure 15: Large Districts More Likely to Have ESPs Than Small Districts	28
Figure 16: ESPs About as Likely in Urban and Nonurban School Districts	29
Figure 17: School Characteristics Emphasized by ESPs	30
Figure 18: School District Involvement in ESPs	32
Figure 19: Examples of State Laws That Pertain to ESPs	33
Figure 20: Sources of External Assistance for ESPs	35
Figure 21: Examples of SEA Support for ESPs	36
Figure 22: Train-The-Trainers Staff Development Training	37
Figure 23: How Do Districts Evaluate ESPs?	38
Figure 24: Program Evaluation	39
Figure 25: District Evaluations Using Achievement Tests	40
Figure 26: District Evaluations Using Nontest Measures	41
Figure 27: In Districts Not Disaggregating by Socioeconomic Status	42
Figure 28: Chapter 1 and 2 Evaluation Requirements in Public Law 100-297	43

---

## Abbreviations

CCD	common core of data
ESPs	effective schools programs
GAO	General Accounting Office
M.S.A.	metropolitan statistical area
SEA	state education agency

# Effective Schools Programs: Their Extent and Characteristics

## Background

The Hawkins-Stafford Elementary and Secondary School Improvement Amendments of 1988 (P.L. 100-297) authorized Chapter 1 compensatory education funds and Chapter 2 educational improvement block grant funds to be expended for effective schools programs (ESPs). An effective schools program is a school-based program to improve the academic achievement of all children in a school, regardless of socioeconomic background or ethnicity, and in particular educationally deprived children (see fig. 1). These programs are also designed to promote school-level planning and decisionmaking and to become formal processes by which schools assess their needs and plan for their own improvement. Effective schools programs, like other school improvement efforts such as parental choice in selecting schools for their children to attend and increased graduation requirements, have become increasingly common as the educational reform movement has burgeoned during the 1980s.

Figure 1

GAO What are ESPs?

## Effective Schools Programs

are school-based programs to improve the academic achievement of all children, regardless of socioeconomic status or ethnicity, and particularly educationally deprived children.

Figure 2

## GAO How Schools Typically Implement ESPs

- Acquaint school staffs with research findings
- Establish teams of teachers and administrators
- Assess schoolwide and classroom needs
- Formulate improvement plans

Effective schools programs have been developed by individual schools, school districts, state education agencies (SEAS), federally funded regional educational laboratories, and universities. According to the research literature and experts we interviewed, effective schools programs differ in (1) the amount of technical and financial assistance received from sources outside the school, (2) the amount of training given staff, (3) the emphasis on schoolwide versus classroom characteristics, and (4) the variety and use of school data that are obtained for evaluation purposes. Despite these differences, the literature shows that schools typically implement effective schools programs in a similar manner (see fig. 2).

## Effective Schools Research

Effective schools programs seek to develop or improve on school characteristics identified by effective schools research as associated with high student achievement (see app. 1 for a list of 22 such characteristics). This research includes studies on school effectiveness, teacher effectiveness, organizational management, and program implementation, according to the literature we reviewed.

Most typically, effective schools programs emphasize the findings of studies on school effectiveness.<sup>1</sup> In these studies, researchers have identified characteristics present in schools with unexpectedly high standardized student achievement test scores given their students' socioeconomic background. Most of these studies focused on urban elementary schools serving low-income and minority students. These studies challenged the assumption that schools could have little effect on improving student achievement—a popular interpretation of earlier studies on equality in education, which found a direct relationship between socioeconomic background and student achievement.<sup>2</sup>

The findings of school effectiveness research were rapidly adopted by schools, districts, and states as models for school improvement programs during the 1980s. The growth of effective schools programs was encouraged, in part, by (1) the belief among educators that schools could make a difference in improving student achievement and (2) school effectiveness researchers who advocated programs based on their research. The most influential researcher and advocate of these programs was the late Ronald Edmonds, who, as a New York City school administrator, launched that city's effective schools program in 1978.

<sup>1</sup>See, for example, W.B. Brookover and L.W. Lezotte, Changes in School Characteristics Coincident with Changes in Student Achievement (East Lansing: Institute for Research on Teaching, Michigan State University, 1979); M.M. Rutter and others, Fifteen-Thousand Hours: Secondary Schools and their Effects on Children (Cambridge, Mass.: Harvard University Press, 1979); G. Weber, Inner-City Children Can Be Taught to Read: Four Successful Schools (Washington, D.C.: Council for Basic Education, 1971).

<sup>2</sup>James Coleman and others, Equality of Educational Opportunity (Washington, D.C.: National Center for Education Statistics, 1966); Christopher Jenks and others, Inequality: A Reassessment of the Effect of Family and Schooling in America (New York: Basic Books, 1972).

Figure 3

## GAO Characteristics Frequently Cited in Effective Schools

- Strong principal leadership
- A pervasive and broadly understood instructional focus
- Safe & orderly school climate
- High teacher expectations for student achievement
- Student achievement data used for evaluating program success

Edmonds defined an effective school as one in which equal percentages of students from varying socioeconomic backgrounds achieve a minimum level of mastery in basic skills. He selected five characteristics identified by school effectiveness research and popularized their use as a model for school improvement (see fig. 3).

Literature describing existing effective schools programs indicates that they make extensive use of this five-characteristic model, although many variations exist. In addition, these five characteristics are incorporated in the definition of an effective schools program used in the Hawkins-Stafford Amendments of 1988 (see app. 2 for the list in P.L. 100-297).

In some of the literature we reviewed, researchers were critical of the widespread growth of programs based on the findings of school effectiveness research.<sup>3</sup> Criticism of the research is leveled against the (1) reduction of the findings to a set of specific characteristics, including the five just mentioned, to be used as a formula for school improvement; (2) generalization of the findings of studies conducted in urban elementary schools to all levels of schools in urban and nonurban areas; (3) notion that once aware of a set of specific characteristics, schools can simply decide to adopt them; and (4) lack of causal evidence about what actions might bring about these specific characteristics in a school.

### Analyzing Academic Achievement to Evaluate Effective Schools Programs

When schools and districts analyze students' academic achievement to evaluate the results of effective schools programs, both the experts we interviewed and the literature we reviewed indicated that measures of academic achievement should be disaggregated (that is, analyzed separately) by student socioeconomic status and ethnicity.<sup>4</sup> Distinguishing the academic achievement of low-income and minority students permits schools and districts to determine whether children in these subgroups show improvement. Without separate analyses, achievement data would remain aggregated, and a school or district could incorrectly interpret achievement gains among only some children—for example, those who are nonminority or from higher-income families—as improvement among all children.

How school enrollments are mixed demographically may influence which student subgroups are relevant for disaggregation, according to some experts we interviewed. For example, in districts where schools with the programs by and large serve only children from low-income families, it may not be relevant to disaggregate by student socioeconomic status.

<sup>3</sup>See, for example, B. Rowan, S. Bossert, D. Dwyer, "Research on Effective Schools: A Cautionary Note," *Educational Researcher*, Vol 12, No.4 (April 1983), pp.24-31; S.C. Purkey and M.S. Smith, "Effective Schools: A Review," *The Elementary School Journal* Vol. 83, No. 4 (1983), pp.427-51; M. Cohen, "Instructional Management and Social Conditions in Effective Schools," in *School Finance and School Improvement: Linkages in the 1980s*, A. Odden and L.D. Webb, eds. (Washington, D.C.: American Educational Finance Association, 1983); J. D'Amico, "Each Effective School May Be One of A Kind," *Educational Leadership* (Dec. 1982), pp.61-62.

<sup>4</sup>Student socioeconomic status can be approximated with actual family income, level of parent education, student participation in the free or reduced-price lunch (or other public assistance) program, and the language spoken at home.



Figure 4

## GAO Federal Funds Authorized for ESPs

### **ESPs may be funded with**

- Chapter 1 funds for schoolwide projects
- Chapter 2 funds for local and state programs

Some schools and districts with effective schools programs seek to narrow the performance gap between students; thus, they may establish goals for raising the academic achievement of a certain percentage of lower-achieving students to a higher level. To determine whether such a goal is met, a school or district could analyze achievement measures for students grouped according to their prior achievement level, without disaggregating the data by student socioeconomic status or ethnicity. This method of evaluating program results, however, would not disclose whether subgroups of children (for example, low-income or minority) that were lower achievers in an earlier period show improved performance in a later period.

## Federal Support for Effective Schools Programs

Public Law 100-297 includes the first Chapter 1 and Chapter 2 program authorizations for effective schools programs (see fig. 4). In fiscal year 1989, a total of \$4.6 billion was appropriated for Chapter 1 and \$462.8 million for the Chapter 2 block grant program.

Chapter 1 funds may be used for effective schools programs when districts fund these programs as schoolwide projects. Such projects may only operate in schools where at least 75 percent of the children enrolled are from low-income families. The purpose of schoolwide projects is to upgrade a school's entire educational program rather than serve only certain students like other Chapter 1 programs. Chapter 2 funds may be used by districts for effective schools programs as innovative programs to carry out schoolwide improvements—one of six authorized local targeted assistance programs (see app. 3). Public Law 100-297 requires SEAs to use a portion of the Chapter 2 funds they retain for effective schools programs (see fig. 5).

SEAs must distribute at least 80 percent of their Chapter 2 funds to school districts for use among the authorized targeted assistance programs. The other 20 percent is reserved for state programs that include (1) Chapter 2 program administration, (2) assistance to school districts and statewide activities to provide targeted assistance, and (3) assistance to school districts and statewide activities to support effective schools programs.

Of Chapter 2 funds reserved for state programs, SEAs are required to use at least 20 percent for effective schools programs, unless a waiver is granted by the Secretary of Education. The Secretary may waive this requirement if a state already spends twice the required amount from nonfederal sources on these programs. The total amount of state Chapter 2 funds available for effective schools programs in fiscal year 1989 was about \$18.4 million. Individual state funds available for effective schools programs ranged from about \$92,000 in states such as Delaware and Vermont to \$1.9 million in California.

Figure 5

---

**GAO State Distribution of  
Chapter 2 Funds**

---

**SEAs distribute at least 80%  
of funds to districts --**

- To be used for six local  
targeted assistance  
programs, including ESPs

**Remaining 20% of funds  
reserved for state use --**

- States must use a portion  
for ESPs

Figure 6

## GAO Study Objectives

- 
- |                  |  |
|------------------|--|
| <b>Determine</b> | Number of U.S. districts with effective schools programs |
| <b>Identify</b>  | Common ESP characteristics and practices                 |
| <b>Describe</b>  | How districts evaluate program effect on achievement     |
| <b>Discuss</b>   | Federal requirements for evaluating ESPs                 |

Figure 7

## GAO Methodology

**Interview** Federal and state officials  
Researchers / program experts

**Review** Effective schools research

**Survey** A nationally representative  
sample of school district  
superintendents

### Objectives, Scope, and Methodology

To provide needed information on the extent and characteristics of effective schools programs in the nation's school districts, the Chairman of the House Education and Labor Committee asked us to conduct a national study of these programs. In response to his request, we defined our objectives as shown in figure 6. The methodology used to accomplish our objectives is summarized in figure 7. To help us plan our study and develop a questionnaire for 1,685 school district superintendents, we (1) interviewed experts as well as Department of Education and SEA officials and (2) reviewed the research literature on effective schools. The questionnaire, which was the primary means through which we

obtained information about effective schools programs nationwide, covered topics relating to the development, implementation, and evaluation of programs operating in school year 1987-88.

We mailed copies of the questionnaire to the superintendents of a stratified random sample of school districts across the country; we received responses from 82 percent of the school districts in our sample. Our findings are representative of the approximately 16,000 school districts in the nation.<sup>5</sup> <sup>6</sup> In cases where information was incomplete or discrepancies occurred in districts' responses, we spoke with the respondents and made appropriate changes. We did not visit districts to verify the accuracy of their responses.

We used a stratified sample design to obtain national representativeness and minimize sample size. The strata for our sample consisted of (1) 310 school districts, selected randomly from 873 districts identified by experts as having effective schools programs—including school-based planning teams—in which student achievement was disaggregated by student socioeconomic status; (2) 223 school districts, selected randomly from 309 districts identified by experts as having effective schools programs—including school teams—but with unknown evaluation practices; (3) the 50 largest school districts of the nation's 50 largest cities (see app. V for a list of cities);<sup>7</sup> and (4) 1,089 school districts, selected randomly from the 1986-87 public education agency universe of the Department of Education's common core of data (CCD).<sup>8</sup>

We discussed our questionnaire results with Department of Education officials and incorporated their comments where appropriate. We conducted our study during October 1988 through April 1989 in accordance with generally accepted government auditing standards.

<sup>5</sup>Our sample only includes local school districts, which do not include regional education service agencies, supervisory union administrative centers, state-operated agencies, and federally operated agencies, which together total approximately 1,300 districts. (Source: U.S. Department of Education, Center for Education Statistics.)

<sup>6</sup>The confidence intervals for our data are shown in appendix IV.

<sup>7</sup>We selected the fifty largest cities based on 1986 Bureau of the Census population estimates.

<sup>8</sup>CCD is a universe survey of U.S. schools and districts and is not subject to sampling error. It consists of data submitted annually by all SEAs in response to six survey instruments administered by the Center for Education Statistics, which maintains the database. The 1986-87 CCD public education agency universe had a response rate of 91 percent.

Figure 8

---

**GAO Criteria Used to  
Measure Extent of ESPs**

---

**Criterion 1** School improvement programs  
based on findings of effective  
schools research

**Criterion 2** Also use school teams and  
written improvement plans

**Criterion 3** Also evaluate ESPs by  
disaggregating achievement  
data by student socioeconomic  
status or ethnicity

---

**Many School Districts  
Operate Effective  
Schools Programs**

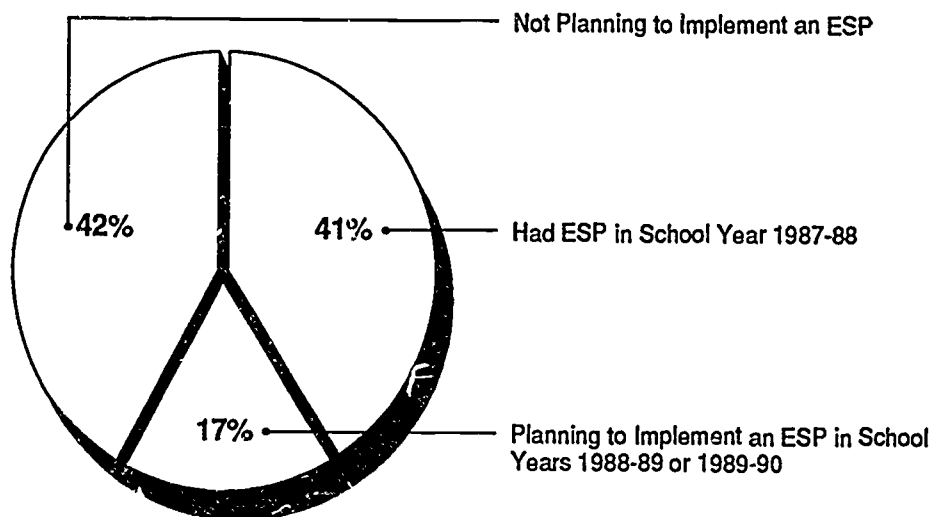
We used various criteria to measure the extent of effective schools programs to provide the Congress with information on (1) the overall number of districts and schools with the programs and (2) the extent that these programs include specific activities recommended by program experts (see fig. 8).



Figure 9

## GAO Extent of ESPs in U.S. Districts Meeting Criterion 1

### Majority have or plan to start programs

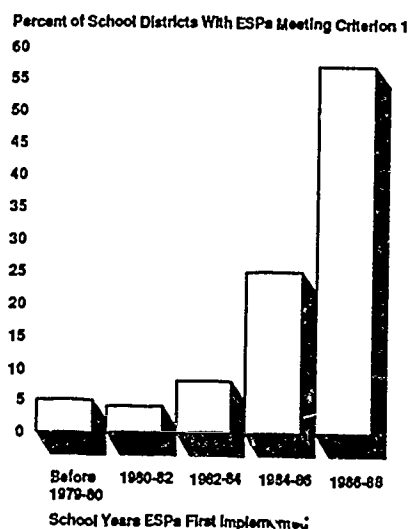


Using the first criterion, which stipulates that the programs be based on the findings of effective schools research, about 41 percent or 6,500 of the nation's school districts had effective schools programs in operation in approximately 38,000 elementary and secondary schools during school year 1987-88 (see fig. 9). An additional 17 percent or about 2,600 of the nation's districts have plans to implement effective schools programs during school years 1988-89 or 1989-90. Many of the programs have been recently established (see fig. 10). Over half of the district officials reported that their effective schools programs were first implemented during school years 1986-87 or 1987-88.

Figure 10

## GAO Many ESPs Recently Implemented

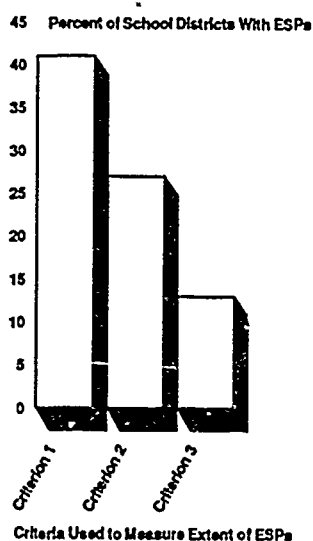
**Over half began during school years 1986-88**



The second program criterion includes those programs that use (1) school-level teams on which teachers and administrators work together to plan and monitor their programs and (2) written plans for improving school effectiveness; about 27 percent or 4,300 of the nation's districts had such effective schools programs in approximately 27,000 schools (see fig. 11 and see app. VII). Program experts encourage school teams and written plans to help foster school-level planning and decisionmaking by school staff, which (as discussed on p. 10) are objectives of effective schools programs.

Figure 11

## GAO Using Different Criteria, Extent of ESPs in U.S. Districts



When using the third criterion—that districts also disaggregate academic achievement data by student socioeconomic status or ethnicity when evaluating their programs—only about 13 percent or 2,100 of the nation's school districts had effective schools programs in approximately 18,000 elementary and secondary schools (see fig. 11).<sup>9</sup> As discussed on pages 14 and 15, such analyses permit schools or districts to determine whether low-income and minority children show improvement.

<sup>9</sup>For the purpose of criterion 3, academic achievement data may be obtained using achievement tests or nontest measures such as student grades, attendance, and dropout rates.

Figure 12

## GAO Which Schools and Districts Have ESPs? (Criterion 1)

- ESPs are about as likely in schools at each grade level
- ESPs commonly serve mix of low-income and higher-income children
- ESPs are more likely in large districts
- ESPs are about as likely in urban and nonurban districts

### Which Schools and Districts Have Effective Schools Programs?

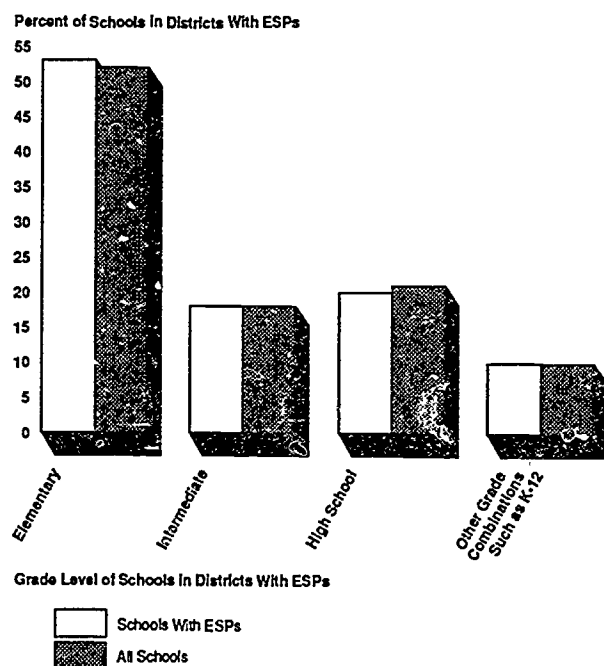
To describe which schools and districts have effective schools programs, we collected data on the grade levels of schools with the programs, the socioeconomic diversity and size of their enrollments, and their geographic location (see fig 12).

### Programs About as Likely at Each Grade Level

Effective schools programs meeting the first criterion operated in elementary and secondary schools at an average rate approximately commensurate with districts' average total percentage of elementary and

Figure 13

## GAO ESPs About as Likely at Each Grade Level

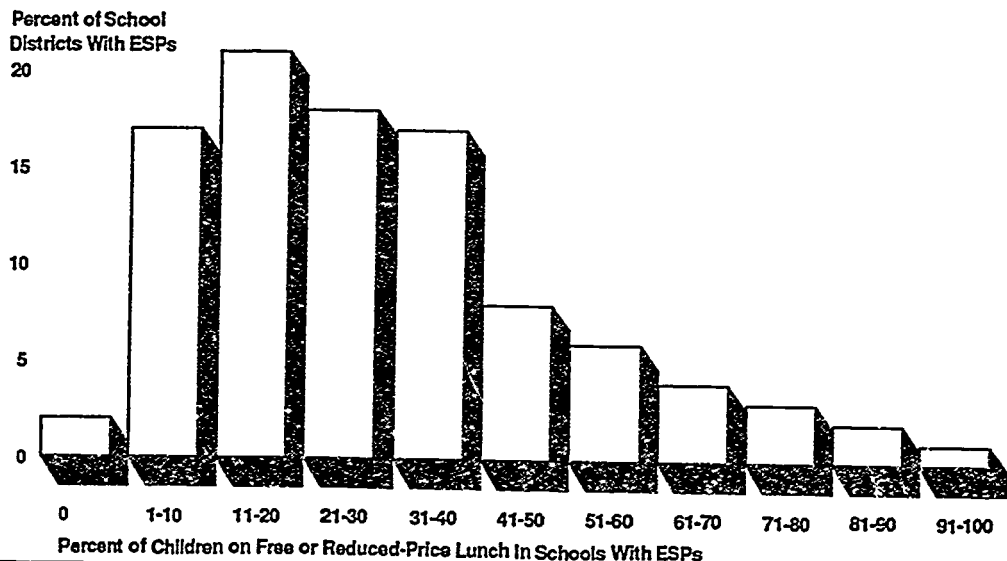


secondary schools, district officials reported (see fig. 13). For example, an average of about 53 percent of effective schools programs operate in elementary schools, with elementary schools making up, on average, 52 percent of the total number of schools in districts with programs. In addition, an average of 20 percent of effective schools programs operate in high schools, with high schools making up, on average, about 21 percent of the schools in districts with programs.

Figure 14

## GAO Socioeconomic Status of Children

### ESPs serve mix of low-income and higher-income children



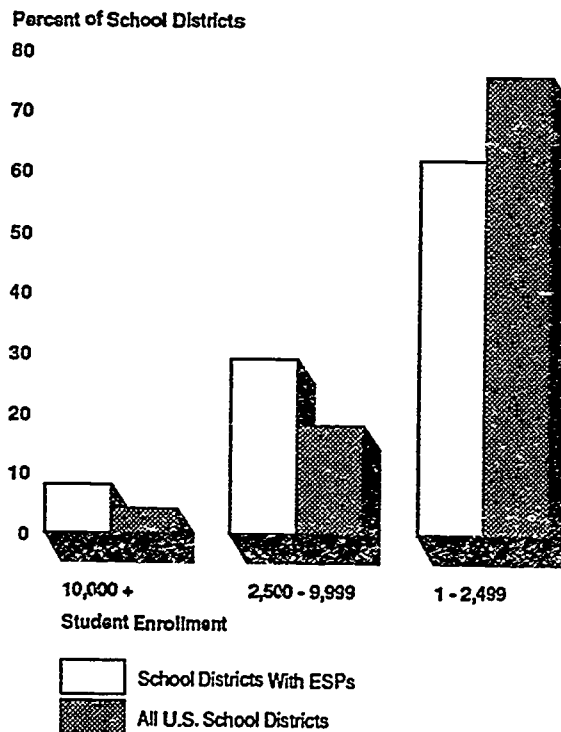
#### Programs Commonly Serve Mix of Low-Income and Higher-Income Children

Effective schools programs meeting the first criterion commonly serve mixed enrollments of low-income and higher-income children, district officials reported (see fig. 14). To estimate the socioeconomic diversity of districts' school enrollments, we asked district administrators to specify the percentage of children who participated in the free or reduced-price lunch program in those schools with effective schools programs.<sup>10</sup>

<sup>10</sup>The percentage of children participating in the free or reduced-price lunch program may underestimate the percentage of low-income children in a school because all eligible children do not participate. Children that receive free lunch have family incomes of 130 percent or less of the official poverty threshold, which was \$9,431 for a 3-person family in 1988, children that receive reduced-price lunch have family incomes of 185 percent or less of the official poverty threshold. Among all children that received free or reduced-price lunches during the first 6 months of fiscal year 1989, 85.5 percent received free lunches. (Source: U.S. Department of Commerce, Bureau of the Census and U.S. Department of Agriculture, Child Nutrition Division.)

Figure 15

## GAO Large Districts More Likely to Have ESPs Than Small Districts



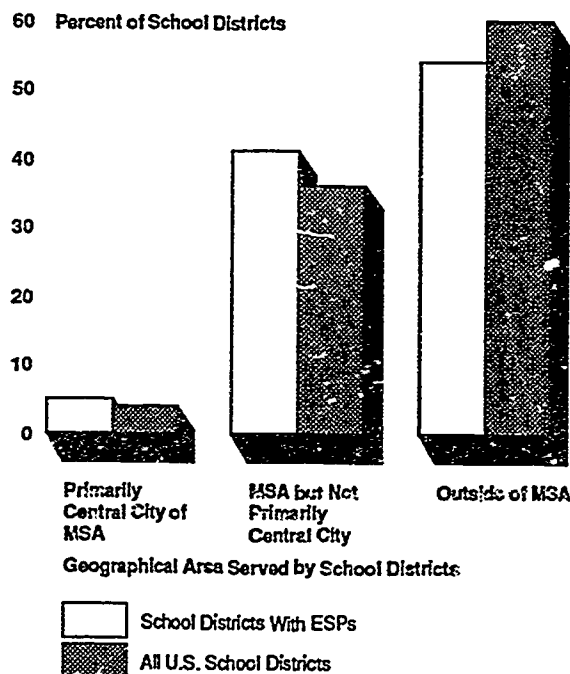
### Programs More Likely in Larger School Districts

Effective schools programs are somewhat more likely to operate in large school districts (enrollments of 2,500 or more). For example, although districts with enrollments of 10,000 students and over make up 4 percent of all U.S. districts, these districts account for about 8 percent of the districts with effective schools programs meeting the first criterion (see fig. 15). Likewise, districts with enrollments of 2,500 to 9,999 students make up 18 percent of all U.S. districts and about 29 percent of the districts with programs.



Figure 16

## GAO ESPs About as Likely in Urban and Nonurban School Districts



### Programs About as Likely in Urban and Nonurban Areas

Effective schools programs operate in urban school districts, including central city districts, at a rate nearly commensurate with the percentage of such districts in the nation. We defined urban districts as districts that serve a metropolitan statistical area (MSA) and central city districts as districts that serve the central city of an MSA.<sup>11</sup> For example, central city school districts make up 4 percent of all U.S. districts and about 5 percent of the districts with effective schools programs meeting the

<sup>11</sup> An MSA has one or more central counties containing an urbanized area with at least 50,000 inhabitants. An MSA may also include outlying counties that have close economic and social relationships with the central counties.

Figure 17

## GAO School Characteristics Emphasized by ESPs

### **Many districts cited all nine of these characteristics**

- Strong instructional leadership
- High achievement expectations
- Pervasive instructional focus
- Monitoring student achievement
- Basic skills acquisition
- Staff collaboration
- Academic learning time
- Parental support
- Safe & orderly school climate

first criterion (see fig. 16). We found that at least 39 of the nation's 50 largest cities had effective schools programs in their districts during school year 1987-88 (see app. V).

### **School Characteristics Emphasized by Programs**

Effective schools programs seek to develop or improve on school characteristics identified by effective schools research as associated with high student achievement (see p. 12). We asked district administrators to indicate which school characteristics their programs emphasized through specific activities such as needs assessments, staff development

---

training, and changes in classroom instruction and school management procedures.<sup>12</sup> According to their responses, in about 88 percent of the 6,500 districts, the programs sought to improve on at least six of nine school characteristics listed in our questionnaire (see fig. 17). The programs in about 67 percent of the districts sought to improve on at least eight characteristics, and the programs in about 53 percent of the districts emphasized all nine (see app. VII for further details on fig. 17).

A study that used a nationally representative survey of high schools provides another example of effective schools programs emphasizing many different characteristics.<sup>13</sup> In this study, a majority of principals reported that effective schools programs in their schools gave major emphasis to at least 12 characteristics identified by effective schools research. The authors of this study questioned how the schools could devote major emphasis to so many characteristics simultaneously since each one was likely to require considerable effort.

---

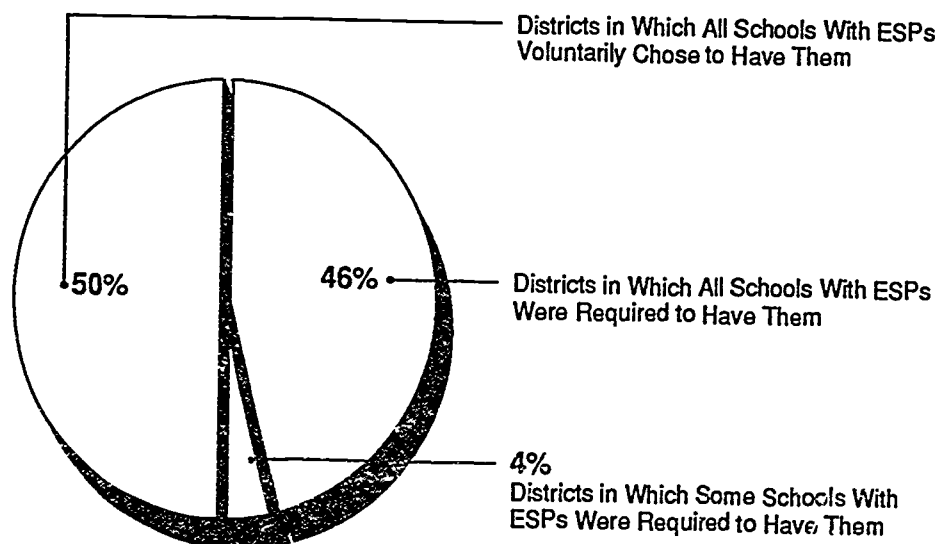
<sup>12</sup>Our questionnaire listed nine school characteristics that were frequently cited in the literature on effective schools research (see fig. 17).

<sup>13</sup>S.C. Purkey, R.A. Rutter, and F.M. Newmann, "U.S. High School Improvement Programs: A Profile from the High School and Beyond Supplemental Survey," *Metropolitan Education*, Vol.3 (Winter 1986-87), pp. 59-91. The survey used was the 1984 High School and Beyond Supplemental Survey of Principals and Teachers.

Figure 18

## GAO School District Involvement in ESPs

### Half of the districts required schools to implement programs



### Many Districts Require Schools to Implement Effective Schools Programs

Our questionnaire results indicate that in half of the school districts with effective schools programs meeting the first criterion, some or all schools with the programs were required by their districts to implement them (see fig. 18). In the other half of the districts with programs, schools implemented them on a voluntary basis. Some districts that require effective schools programs do so because of state laws that require (or encourage) school improvement programs (see fig. 19).

Figure 19

## GAO Examples of State Laws that Pertain to ESPs

**States such as Maine, Indiana  
New York, and South Carolina,**

- Require or fund improvement programs in schools, or
- Require schools to prepare improvement plans, or
- Have accreditation standards that include effective schools objectives

Some of the literature we reviewed discussed the strengths and weaknesses of approaches in which districts become involved in schools' decisions to implement an effective schools program.<sup>14</sup>

- Top-down approach: The school district requires schools to implement effective schools programs and determines program content, goals, and expected outcomes, usually focused on achievement tests. A strength

<sup>14</sup>See, for example, S.C. Purkey and M.S. Smith, "School Reform. The District Policy Implications of the Effective Schools Literature," *The Elementary School Journal*, Vol. 45, No. 3 (Jan. 1985), pp. 353-63; L. Cuban, "Transforming the Frog into a Prince: Effective Schools Research, Policy, and Practice at the District Level," *Harvard Educational Review*, Vol. 54, No. 2 (May 1984), pp. 129-37.

cited in this approach is that reform will be attempted where it is needed. But a weakness may be that the lack of staff choice in program implementation and management, as well as the focus on test scores, may diminish (1) school staffs' sense of responsibility and commitment toward the program and (2) flexibility in curricula, classroom practices, and program management.

- Bottom-up approach: The school district may provide incentives, such as program funds and teacher-release time from classes for program planning, but each school voluntarily chooses to implement an effective schools program, determines its own agenda, and uses district funds in the manner that staff and parents choose. Choice and flexibility are strengths of this approach, but a weakness cited is that schools that could benefit from the program may choose not to participate or may drop out as staff enthusiasm declines.
- Mixed approaches: This approach combines the strengths of the other two approaches. The district may require schools to implement effective schools programs and provide incentives that encourage staff planning and collaboration, such as funds for substitutes, but then relies on school staffs for program design, implementation, and management.

### Programs Frequently Developed and Implemented With External Assistance

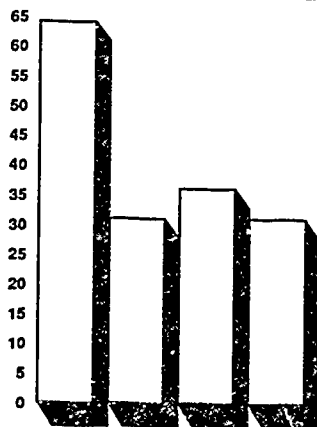
SEAS, universities, federally funded regional educational laboratories, and other agencies or individuals outside of the school district frequently assist districts and schools in developing and implementing effective schools programs, according to our survey results and the literature we reviewed. To assist principals and teachers plan and implement their programs, agencies and individuals outside of the school district may develop program models and provide staff training and technical assistance; SEAS may provide financial support to districts and schools. Our questionnaire results indicate that about 64 percent of the districts with effective schools programs meeting the first criterion received external assistance in developing their programs. Many of these programs were developed with assistance from an SEA (see fig. 20).

Figure 20

## GAO Sources of External Assistance for ESPs

### Many districts received assistance from SEAs

Percent of School Districts That Received External Assistance



Agency That Provided External Assistance



Figure 21

## GAO Examples of SEA Support for ESPs

- Connecticut and Minnesota SEAs have ESP model
- New York, Michigan, and Kentucky SEAs provide training and technical assistance
- California, New Jersey, and Wisconsin SEAs provide financial support to schools or districts

Through interviews with state officials and program experts in all 50 states and the District of Columbia, we identified 31 SEAs that assisted schools and districts in developing or implementing effective schools programs (see fig. 21 and see app. VI for a listing of SEAs and examples of the assistance they provide). We found that SEA staff provided assistance through such means as school visits and staff development workshops, including a train-the-trainers approach, in which SEA staff train district staff to train key school staff. For example, an assistant superintendent trained school principals in Marion School District 1, South Carolina (see fig. 22). A trainer from SEA observed and evaluated this workshop.

Figure 22: Train-The-Trainers Staff Development Training

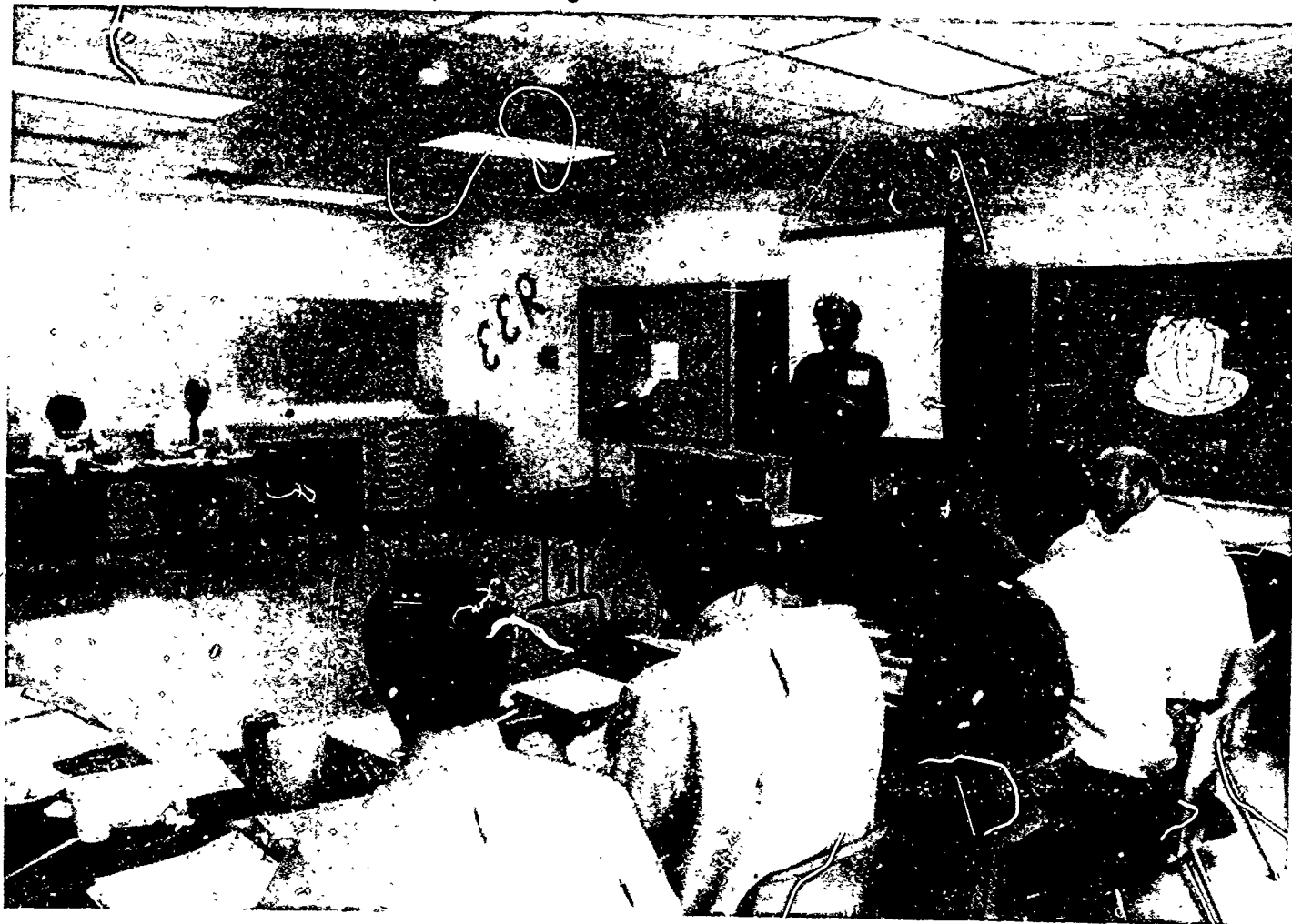


Figure 23

## GAO How Do School Districts Evaluate ESPs?

- Districts use achievement tests and nontest measures, but...
- Districts seldom disaggregate achievement data by student socioeconomic status or ethnicity; thus, they seldom determine if ESPs help all children

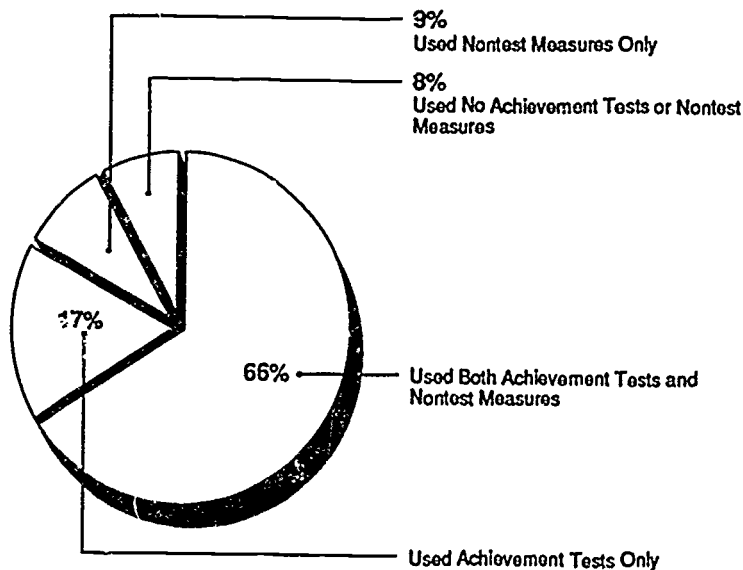
### Districts Seldom Determine If Programs Help All Children

School district administrators reported using various achievement tests and nontest measures to evaluate the results of effective schools programs on student academic achievement (see fig. 23). When evaluating their programs, however, school districts seldom determine if the academic achievement of low-income and minority children is improved because the districts seldom disaggregate achievement data by student socioeconomic status or ethnicity.

Figure 24

## GAO Program Evaluation

### Districts use achievement tests and nontest measures



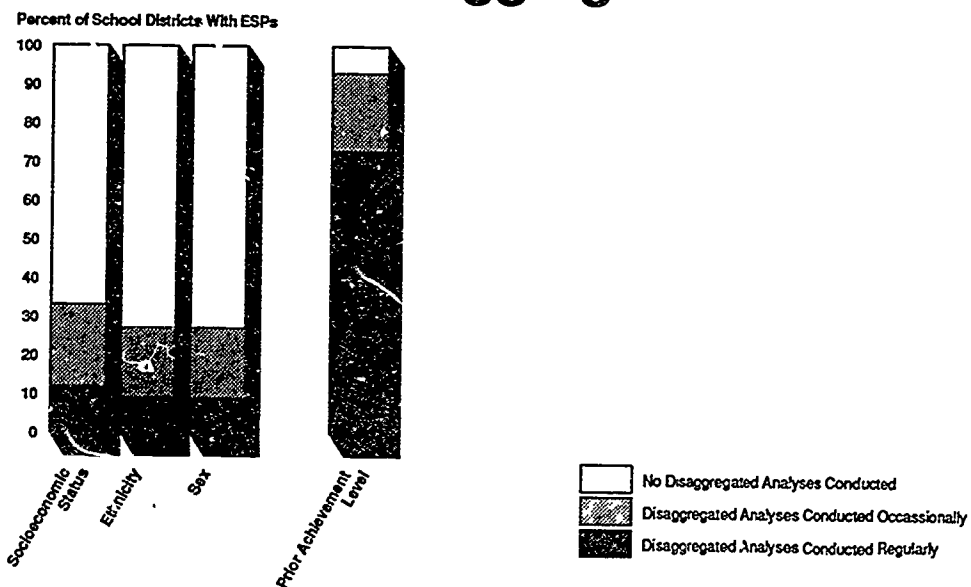
#### Various Measures of Academic Achievement Used

The majority of school districts use both achievement tests and nontest measures to evaluate their programs (see fig. 24). The achievement tests used by school districts typically measure basic language arts and mathematics skill levels or assess mastery of specific curriculum objectives. Nontest measures used by school districts may include student grades, attendance, dropout rates, and enrollments in advanced and remedial classes.

Figure 25

## GAO District Evaluations Using Achievement Tests

### Data seldom disaggregated



### Academic Achievement of Student Subgroups Seldom Analyzed

When evaluating their programs, districts seldom disaggregate achievement test results or nontest measures by student socioeconomic status, ethnicity, or sex (see figs. 25 and 26). But districts frequently disaggregate these measures by students' prior achievement level. Analyzing achievement measures by prior achievement level may allow a school or district to determine whether an increased percentage of students is performing at a higher achievement level (see p. 15). Conducting such analyses, however, without disaggregating data by student socioeconomic status or ethnicity may fail to disclose whether relevant subgroups of children show improved performance among those students that were lower achievers in an earlier period.

Figure 26

## GAO District Evaluations Using Nontest Measures

### Data seldom disaggregated

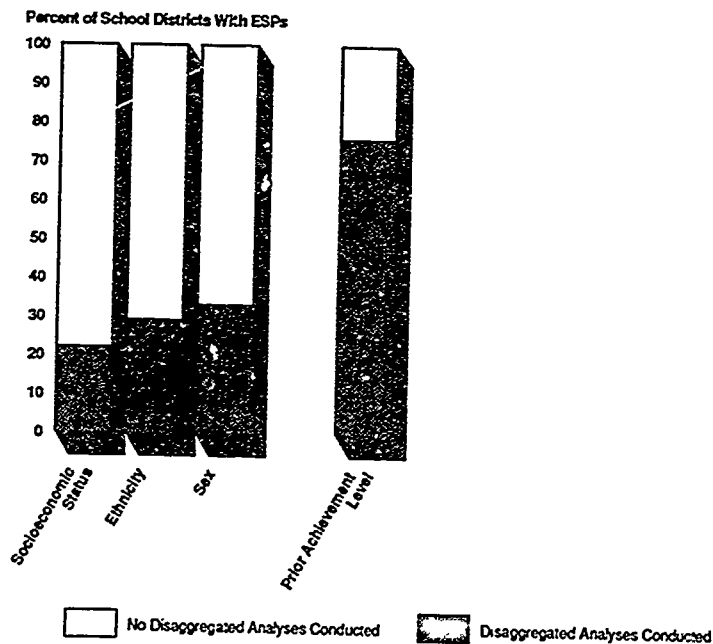
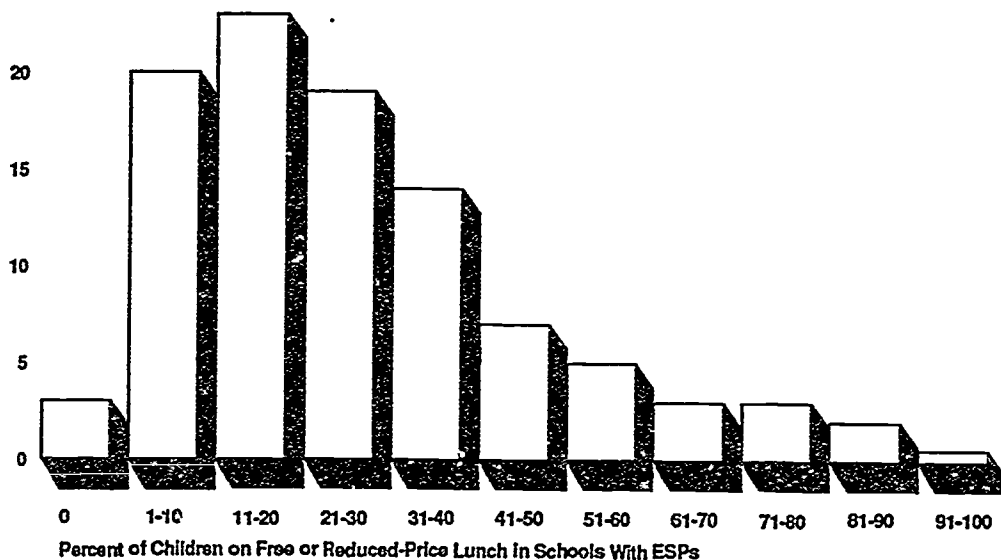


Figure 27

## GAO In Districts Not Disaggregating By Socioeconomic Status

### ESPs serve mix of low-income and higher-income children

25 Percent of Districts That Do Not Disaggregate Data By Socioeconomic Status



Since the demographic mix of school enrollments may influence which student subgroups are relevant for separate analyses (see p. 14), we examined the socioeconomic diversity of the children served by the programs in those districts that did not disaggregate achievement measures by student socioeconomic status. In such districts (see fig. 27), effective schools programs commonly served mixed enrollments of low-income and higher-income children. Because these districts do not distinguish the academic achievement of their low-income children, the districts could incorrectly interpret achievement gains among only some previously lower-achieving children—for example, those from higher-income families—for improvement among all children.

Figure 28

## GAO Chapter 1 and 2 Evaluation Requirements in P.L. 100-297

- The Department must conduct a national study of ESPs funded under Chapter 2
- States must evaluate Chapter 1 and 2 programs and submit evaluations to the Department
- The Department must summarize these state evaluations and periodically report to Congress

### Federal Evaluation Requirements for Effective Schools Programs

Public Law 100-297 requires the Department of Education to contract to conduct a national study on effective schools programs funded under Chapter 2 (see fig. 28). The law also requires SEAS to evaluate programs supported with Chapter 1 and Chapter 2 funds, using data collected from school districts; the law, however, requires no specific state or local evaluations of effective schools programs.

SEAS must submit their evaluations to the Department biennially for Chapter 1 programs and in fiscal year 1992 for Chapter 2 programs. The Department in turn must provide the Congress with evaluations of Chapter 1 and 2 programs through reports summarizing SEA evaluations



of local programs. The Department must submit these reports biennially under Chapter 1 and by October 1, 1992, under Chapter 2. Public Law 100-297 requires the Department to develop (1) national standards for state and local evaluation and reporting purposes under Chapter 1 and (2) a model data collection and reporting system that defines specific data categories to be used by states, at their discretion, for required state evaluations and reports under Chapter 2.

---

## Chapter 1 Evaluation and Reporting Requirements

Under Chapter 1, effective schools programs may be funded as schoolwide projects, which may only operate in schools where at least 75 percent of the children enrolled are from low-income families. Public Law 100-297 and Chapter 1 program regulations require districts to annually evaluate schoolwide projects operating in their schools and to make the results, including achievement and other assessment data, available to their SEAs and the public. According to an official in the Department of Education's planning and evaluation service, the Department plans to examine effective schools programs and their results as part of an implementation study of the Chapter 1 program. The study will include information on (1) the frequency and nature of schoolwide projects and (2) their inclusion of features of effective schools programs. The Department expects the final report of this study to be available by December 1991.<sup>15</sup>

In addition, Public Law 100-297 and Chapter 1 program regulations require districts to evaluate their Chapter 1 program as a whole at least once every 3 years and to suit the results to their SEAs. SEAs, in turn, must use this information for state-level evaluations that are suited to the Department. SEAs must also collect data on the race, age, sex, number of children with handicapping conditions, and number of children by grade level served by Chapter 1 programs; SEAs must annually suit these data to the Department.

Neither Public Law 100-297 nor Chapter 1 program regulations require districts or states to collect information on, or evaluate, effective schools programs separately from other Chapter 1 programs. Public Law 100-297 also does not require the Department to separately evaluate effective schools programs funded under Chapter 1. According to the deputy director of compensatory education programs, because districts and states are not required to operate effective schools programs under

---

<sup>15</sup>According to the Department, it will also examine effective schools programs and their results in a longitudinal evaluation, beginning during school year 1990-91, of the Chapter 1 program.

Chapter 1, the Department believes that federally required data collection for these programs would be burdensome to SEAS and school districts.

## Chapter 2 Evaluation and Reporting Requirements

Under Chapter 2, districts may fund effective schools programs as innovative programs to carry out schoolwide improvements—one of six authorized Chapter 2 local targeted assistance programs. Because the Department of Education has not made final decisions on the specific data categories that the Chapter 2 model data collection and reporting system will include, it is uncertain whether any data specifically on effective schools programs will be collected under the state and local evaluation provisions of Chapter 2. Data for these programs will be collected, however, for state and local Chapter 2 reporting purposes, according to a draft data collection form we obtained from the Department.

By January 1990, the Department of Education expects to define the model system's data categories for evaluation purposes. The Department informed us that it is considering collecting specific data on effective schools programs, but wishes to avoid undue burden on the states. Proposed data categories for state and local reporting purposes were specified during spring 1989. These include (1) the number of children, by grade level, served by each authorized purpose for local targeted assistance, including effective schools programs, (2) the number of schools receiving Chapter 2 funds, and (3) the total amount of Chapter 2 funds used for each targeted assistance purpose.

Concerning the required national study of effective schools programs funded under Chapter 2, the Congress intends data collection for this study to include student achievement outcomes disaggregated by student socioeconomic status and ethnicity.<sup>16</sup> The Department informed us that it plans to award the contract for the study, if funds are available, during fiscal year 1990 and, if so, expects the study to be completed no later than fiscal year 1992.<sup>17</sup>

<sup>16</sup>U.S. Congress House, *Elementary and Secondary Education Conference Report to Accompany H.R. 5* (Rept. 100-567, Apr. 13, 1988, p.422).

<sup>17</sup>The Department said that it also intends to examine effective schools programs and their results in an ongoing study of effective instructional practices and curricula in elementary schools with high concentrations of disadvantaged students.

# Selected Characteristics of Effective Schools Cited in Research Literature

---

Strong instructional leadership  
A safe, orderly, and disciplined school climate  
High expectations for student achievement  
Monitoring student achievement frequently to evaluate progress  
Staff consensus on explicit instructional goals and values  
Collaborative, collegial instructional planning  
Ongoing, schoolwide staff development training  
Teacher accountability and acceptance of responsibility for student performance  
A focus on basic-skills acquisition  
An emphasis on higher-order cognitive skills  
Increased academic learning time  
Cooperative activity and group interaction in the classroom  
Teacher responsibility for instructional and classroom management decisions  
Clearly recognized principles and guidelines for student behavior and performance  
Individual school autonomy and flexibility  
Staff stability and continuity  
High levels of parental involvement and support  
District-level support for school improvement  
High teacher morale and sense of community in school  
Schoolwide recognition of academic success  
Teacher empathy, rapport, and personal interaction with students  
Strategies to avoid retaining students in grade

Source: A compilation of school characteristics that appeared in D.E. Mackenzie, "Research for School Improvement: An Appraisal of Some Recent Trends," Educational Researcher (Vol.12, No.4, Apr. 1983, pp.5-17); school characteristics cited in research reviewed in S.C. Purkey and M.S. Smith, "Effective Schools: A Review," The Elementary School Journal (Vol.83, No.4, March 1983, pp.427-452).

## Five School Characteristics in the Definition of Effective Schools Programs Included in Public Law 100-297

---

- Strong and effective administrative and instructional leadership that creates consensus on instructional goals and organizational capacity for instructional problem solving
- Emphasis on the acquisition of basic and higher-order skills
- A safe and orderly school environment that allows teachers and pupils to focus their energies on academic achievement
- A climate of expectation that virtually all children can learn under appropriate conditions
- Continuous assessment of students and programs to evaluate the effects of instruction

Source: U.S. House of Representatives, Elementary and Secondary Education Conference Report to Accompany H.R. 5 (Report 100-567, April 13, 1988, p.85).

## Chapter 2 Block Grant Program: Six Authorized Local Targeted Assistance Programs

- Programs to meet the educational needs of students at risk of dropping out and students for whom providing an education entails higher-than-average costs
- Programs for the acquisition and use of instructional and educational materials, including library books, reference materials, computer software and hardware for instructional use, and other curricular materials that would be used to improve the quality of instruction
- Innovative programs designed to carry out schoolwide improvements, including effective schools programs
- Programs of training and professional development to enhance the knowledge and skills of educational personnel, including teachers, librarians, school counselors and other pupil services personnel, and administrators and school board members
- Programs designed to enhance personal excellence of students and student achievement, including instruction in ethics, performing and creative arts, humanities, activities in physical fitness and comprehensive health education, and participation in community service projects
- Other innovative projects which would enhance the educational program and climate of the school, including programs for gifted and talented students, technology education programs, early childhood education programs, community education, and programs for youth suicide prevention

Source: U.S. House of Representatives, Elementary and Secondary Education Conference Report to Accompany H.R. 5 (Report 100-567, April 13, 1988, p.83).

# Estimates and Confidence Intervals for Selected Questionnaire Responses

Variable	Universe or school districts	Estimate	Estimated range <sup>a</sup>	
			Lower limit	Upper limit
Number of districts with ESPs meeting criterion 1	15,700			
Had ESP in school year 1987-88		6,509	6,053	6,965
Planning to implement an ESP in school year 1988-89 or 1989-90		2,597	2,247	2,947
Not planning to implement an ESP		6,594	6,132	7,056
School years ESPs first implemented (percent)	6,509			
1979-80 and before		5	3	8
1980-82		4	3	6
1982-84		8	6	10
1984-86		25	21	29
1986-88		57	53	62
Number of school districts with ESPs by program criteria				
Criterion 1	15,700	6,509	6,053	6,965
Criterion 2	6,509	4,304	4,022	4,585
Criterion 3	6,509	2,105	1,834	2,377
Number of schools with ESPs by program criteria				
Criterion 1	6,472	38,285	34,807	42,087
Criterion 2	4,300	27,431	24,291	30,790
Criterion 3	2,102	17,794	15,103	20,612
Use of school teams and written plans (percent)	6,488			
Used school teams		89	86	93
Used written plans		71	67	75
Used both		66	62	70
Grade level of schools with ESPs (percent)	6,339			
Elementary		53	50	56
Intermediate		18	16	20
High school		20	18	22
Other		10	7	12
Grade level of all schools in districts with ESPs (percent)	6,339			
Elementary		52	50	55
Intermediate		18	16	19
High school		21	19	23
Other		10	7	13

(continued)

Appendix IV  
Estimates and Confidence Intervals for  
Selected Questionnaire Responses

Variable	Universe or school districts	Estimate	Estimated range <sup>a</sup>	
			Lower limit	Upper limit
Percent of children on free or reduced-price lunch served by ESPs (percent)	6,410			
0		2	1	3
1-10		17	14	21
11-20		21	18	25
21-30		18	15	22
31-40		17	14	21
41-50		8	5	10
51-60		6	4	8
61-70		4	2	6
71-80		3	1	4
81-90		2	1	4
91-100		1	0	2
Student enrollment in districts with ESPs (percent)	6,452			
10,000 +		8	6	11
2,500 - 9,999		29	24	32
1 - 2,499		62	58	67
Geographic area of school districts with ESPs (percent)	6,452			
Primarily central city of MSA		5	3	7
MSA but not primarily central city		41	37	46
Outside of MSA		54	50	59
Number of school characteristics cited by districts (percent)	6,509			
At least six of 9		88	85	91
At least eight of 9		67	63	72
All 9		53	48	57
School characteristics cited by districts (criteria 1 ESPs)				
Instructional leadership	6,490	92	89	94
Staff expectations	6,490	92	89	94
Instructional focus	6,490	90	87	93
Monitoring student achievement	6,489	88	86	91
Basic-skills acquisition	6,474	89	86	91
Staff collaboration	6,490	86	83	89
Academic learning time	6,490	83	80	87
Parental support	6,490	81	77	84
Safe and orderly climate	6,490	76	72	80

(continued)

Appendix IV  
Estimates and Confidence Intervals for  
Selected Questionnaire Responses

Variable	Universe or school districts	Estimate	Estimated range <sup>a</sup>	
			Lower limit	Upper limit
School characteristics cited by districts (criteria 2 ESPs) (percent)				
Instructional leadership	4,285	92	89	96
Staff expectations	4,285	92	89	95
Instructional focus	4,285	93	90	96
Monitoring student achievement	4,284	90	87	93
Basic-skills acquisition	4,269	92	89	95
Staff collaboration	4,285	89	85	92
Academic learning time	4,285	84	80	88
Parental support	4,285	85	81	89
Safe and orderly climate	4,285	80	75	84
School characteristics cited by districts (criteria 3 ESPs) (percent)				
	2,087			
Instructional leadership		96	93	99
Staff expectations		94	90	98
Instructional focus		97	94	100
Monitoring student achievement		91	87	96
Basic-skills acquisition		96	92	99
Staff collaboration		94	90	97
Academic learning time		89	84	94
Parental support		92	88	96
Safe and orderly climate		88	82	93
School district involvement in ESPs (percent)				
	6,468			
All schools with ESPs were required to have them		46	42	51
Some schools with ESPs were required to have them		4	2	6
All schools with ESPs voluntarily chose to have them		50	45	54
Whether district developed program with external assistance (percent)				
	6,505			
Yes		64	60	68
No		36	32	40
Source of external assistance (percent)				
SEA	4,161	64	58	69
University	4,142	31	26	36
Educational laboratory	4,127	36	30	41
Other	4,149	31	26	36

(continued)



**Appendix IV**  
**Estimates and Confidence Intervals for**  
**Selected Questionnaire Responses**

Variable	Universe or school districts	Estimate	Estimated range <sup>a</sup>	
			Lower limit	Upper limit
Measures of achievement districts used to evaluate results of ESPs (percent)				
Achievement tests	6,505	83	80	87
Nontest measures	6,509	75	70	78
Both achievement tests and nontest measures	6,505	66	62	70
Achievement tests only	6,505	17	14	21
Nontest measures only	6,505	9	6	11
No achievement tests or nontest measures used	6,505	8	6	11
Student subgroups by which districts disaggregated achievement test results (percent)				
Socioeconomic status	5,386			
Regularly		12	9	15
Occasionally		21	17	25
Ethnicity	5,400			
Regularly		9	6	12
Occasionally		18	14	21
Sex	5,385			
Regularly		9	6	12
Occasionally		18	14	21
Prior achievement level	5,401			
Regularly		73	69	77
Occasionally		20	16	24
Student subgroups by which districts disaggregated nontest measures (percent)				
	4,850			
Socioeconomic status		22	18	26
Ethnicity		29	24	34
Sex		33	28	38
Prior achievement level		76	72	81

(Continued)

Appendix IV  
Estimates and Confidence Intervals for  
Selected Questionnaire Responses

Variable	Universe or school districts	Estimate	Estimated range <sup>a</sup>	
			Lower limit	Upper limit
Percent of children on free or reduced-price lunch served by ESPs in districts that do not disaggregate achievement data by student socioeconomic status (percent)	4,637			
0		3	0	5
1-10		20	16	25
11-20		23	18	27
21-30		19	15	24
31-40		14	10	18
41-50		7	5	10
51-60		5	3	7
61-70		3	1	5
71-80		3	1	4
81-90		2	0	3
91-100		<sup>b</sup>	<sup>c</sup>	<sup>c</sup>

<sup>a</sup>Computed at the 95-percent level of statistical confidence; e.g., we are 95 percent confident that the true proportion of school districts is between the ranges specified.

<sup>b</sup>Less than one percent.

<sup>c</sup>Not applicable.

# Effective Schools Programs in the Fifty Largest Cities (School Year 1987-88)

City <sup>b</sup>	Criteria <sup>a</sup>				Criteria		
	1	2	3		1	2	3
New York, NY	Yes	Yes	Yes	Austin, TX	Yes	Yes	Yes
Los Angeles, CA	Yes	Yes	Yes	Oklahoma City, OK	Yes	No	No <sup>e</sup>
Chicago, IL	Yes	Yes	Yes	Kansas City, MO	Yes	Yes	Yes
Houston, TX	Yes	Yes	Yes	Fort Worth, TX	Yes	Yes	Yes
Philadelphia, PA	Yes	Yes	No	St. Louis, MO	Yes	Yes	Yes
Detroit, MI	Yes	Yes	Yes	Atlanta, GA	d	d	d
San Diego, CA	Yes	Yes	Yes	Long Beach, CA	Yes	Yes	No
Dallas, TX	Yes	Yes	No	Portland, OR	Yes	Yes	Yes
San Antonio, CA	c	c	c	Pittsburgh, PA	Yes	Yes	Yes
Phoenix, AZ	Yes	Yes	Yes	Miami, FL	Yes	Yes	Yes
Baltimore, MD	Yes	Yes	Yes	Tulsa, OK	Yes	Yes	No
San Francisco, CA	Yes	Yes	Yes	Honolulu, HI	Yes	Yes	Yes
Indianapolis, IN	Yes	Yes	Yes	Cincinnati, OH	No	f	f
San Jose, CA	d	d	d	Albuquerque, NM	Yes	Yes	No
Memphis, TN	d	d	d	Tucson, AZ	d	d	d
Washington, D.C.	Yes	Yes	Yes	Oakland, CA	Yes	Yes	No
Jacksonville, FL	Yes	Yes	Yes	Minneapolis, MN	d	d	d
Milwaukee, WI	Yes	Yes	Yes	Charlotte, NC	No	f	f
Boston, MA	c	c	c	Omaha, NE	Yes	Yes	Yes
Columbus, OH	Yes	No	No <sup>e</sup>	Toledo, OH	Yes	No	No <sup>e</sup>
New Orleans, LA	Yes	Yes	Yes	Virginia Beach, VA	c	c	c
Cleveland, OH	Yes	Yes	Yes	Buffalo, NY	Yes	Yes	No
Denver, CO	Yes	Yes	Yes	Sacramento, CA	Yes	Yes	Yes
El Paso, TX	Yes	Yes	No	Newark, NJ	Yes	Yes	No
Seattle, WA	d	d	d				
Nashville, TN	Yes	Yes	Yes				

<sup>a</sup>These criteria are shown in figure 10.

<sup>b</sup>Cities are presented in order of size.

<sup>c</sup>School district intends to implement program during school year 1988-89 or 1989-90.

<sup>d</sup>No response to questionnaire received.

<sup>e</sup>District disaggregates academic achievement data by student socioeconomic status or ethnicity

<sup>f</sup>Not applicable

# Examples of SEA Assistance to School Districts and Schools for Effective Schools Programs

SEA	Kind of Assistance
Alaska	Staff training
Arkansas	Staff training
California	Developed ESP model; provided staff training, technical assistance, and financial support
Colorado	Technical assistance
Connecticut	Developed ESP model; provided staff training and technical assistance
Delaware	Technical assistance and financial support
Illinois	Technical assistance
Indiana	Staff training, technical assistance, and financial support
Kentucky	Staff training, technical assistance, and financial support
Louisiana	Financial support
Massachusetts	Financial support
Maryland	Developed ESP model; provided staff training and financial support
Michigan	Staff training and technical assistance
Minnesota	Developed ESP model; provided staff training
Missouri	Staff training
New Hampshire	Staff training and technical assistance
New Jersey	Staff training, technical assistance, and financial support
Nevada	Developed ESP model; provided staff training and technical assistance
New York	Staff training and technical assistance
Ohio	Staff training, technical assistance, and financial support
Oregon	Staff training and financial support
Pennsylvania	Technical assistance
Rhode Island	Staff training and technical assistance
South Carolina	Developed ESP model; provided staff training and technical assistance
South Dakota	Staff training and technical assistance
Texas	Technical assistance
Utah	Staff training and technical assistance
Virginia	Technical assistance and financial support
Vermont	Technical assistance
Wisconsin	Financial support
West Virginia	Staff training and technical assistance

# Tables Supporting Figures in Report Text and Supplementary Tables

**Table VII.1: Extent of ESPs Meeting Criterion 1 in U.S. Districts (Data for Fig.9)**

	School districts	
	Number	Percent
Had ESP in school year 1987-88	6,509	41
Planning to implement an ESP in school year 1988-89 or 1989-90	2,597	17
Not planning to implement an ESP	5,594	42
<b>Total</b>	<b>15,700</b>	<b>100</b>

**Table VII.2: School Years ESPs First Implemented (Data for Fig.10)**

School years	Percent of school districts
1979-80 and before	5
1980-82	4
1982-84	8
1984-86	25
1986-88	57

**Table VII.3: Number of School Districts and Schools With ESPs by Program Criteria (Data for Fig.11)**

Criteria	Districts	Schools
1	6,509	38,285
2	4,304	27,431
3	2,105	17,794

**Table VII.4: Use of School Teams and Written Plans**

	Percent of school districts with ESPs
Used School Teams	89
Used Written Plans	71
Used Both Teams and Plans	66

**Table VII.5: Grade Level of Schools With ESPs (Data for Fig.13)**

Grade level	Average percent of schools in districts with ESPs	
	Schools with ESPs	Schools
Elementary	53	52
Intermediate	18	18
High School	20	21
Other Grade Levels	10	10

Appendix VII  
Tables Supporting Figures in Report Text and  
Supplementary Tables

Table VII.6: Percent of Children on Free or Reduced-Price Lunch Served by ESPs (Data for Fig.14)

Percent of children	Percent of school districts with ESPs
0	2
1-10	17
11-20	21
21-30	18
31-40	17
41-50	8
51-60	6
61-70	4
71-80	3
81-90	2
91-100	1

Table VII.7: Student Enrollment in Districts With ESPs and All U.S. Districts (Data for Fig.15)

Enrollment	Percent of school districts	
	With ESPs	All U.S. districts
10,000 +	8	4
2,500 - 9,999	29	18
1 - 2,499	62	76

Table VII.8: Geographic Area of School Districts With ESPs and All U.S. Districts (Data for Fig.16)

Geographic area	Percent of school districts	
	With ESPs	All U.S. districts
Primarily central city of MSA	5	4
MSA but not primarily central city	41	36
Outside of MSA	54	60

Appendix VII  
Tables Supporting Figures in Report Text and  
Supplementary Tables

**Table VII.9: School Characteristics Cited  
by Districts by Program Criteria (Data for  
Fig.17)**

School characteristic cited	Percent of districts by criteria		
	1	2	3
Providing strong instructional leadership	92	92	96
Raising staff expectations for student achievement	92	92	94
Attaining a broadly understood instructional focus	90	93	97
Monitoring student achievement to evaluate program success	88	90	91
Emphasizing basic-skills acquisition	89	92	96
Promoting staff collaboration and collegiality	86	89	94
Improving academic learning time	83	84	89
Improving parental support	81	85	92
Attaining a safe and orderly school climate	76	80	88

**Table VII.10: School District Involvement  
in ESPs (Data for Fig.18)**

	Percent of school districts with ESPs
Districts in which all schools with ESPs were required to have them	46
Districts in which some schools with ESPs were required to have them	4
Districts in which all schools with ESPs voluntarily chose to have them	50

**Table VII.11: Source of External  
Assistance to Districts With ESPs (Data  
for Fig.20)**

Source	Percent of school districts that received external assistance
SEA	64
University	31
Educational Laboratory	36
Other	31

**Table VII.12: Measures of Achievement  
Districts Used to Evaluate Results of  
ESPs (Data for Fig.24 and Related  
Information)**

Achievement measure	Percent of school districts with ESPs
Achievement tests	83
Nontest measures	75
Both achievement test and nontest measures	66
Achievement tests only	17
Nontest measures only	9
No achievement tests or nontest measures used	8

Appendix VII  
Tables Supporting Figures in Report Text and  
Supplementary Tables

Table VII.13: Student Subgroups by Which Districts Disaggregated Achievement Test Results (Data for Fig.25)

Student subgroup	Percent of School Districts with ESPs	
	Analyzed regularly	Analyzed occasionally
Socioeconomic status	12	21
Ethnicity	9	18
Sex	9	18
Prior achievement level	73	20

Table VII.14: Student Subgroups by Which Districts Disaggregated Nontest Measures (Data for Fig.26)

Student subgroup	Percent of school districts with ESPs
Socioeconomic status	22
Ethnicity	29
Sex	33
Prior achievement level	76

Table VII.15: Percent of Children on Free or Reduced-Price Lunch Served by ESPs in Districts That Do Not Disaggregate Achievement Data by Student Socioeconomic Status (Data for Fig. 27)

Percent of children	Percent of school districts with ESPs
0	3
1-10	20
11-20	23
21-30	19
31-40	14
41-50	7
51-60	5
61-70	3
71-80	3
81-90	2
91-100	<sup>a</sup>

<sup>a</sup>Less than 1 percent.



# Major Contributors to This Report

---

## Human Resources Division, Washington, D.C.

William J. Gainer, Director, Education and Employment Issues,  
(202) 275-5365

Fred E. Yohey, Jr, Assistant Director

Deborah R. Eisenberg, Assignment Manager

Richard J. Wenning, Evaluator-in-Charge

Joanne R. Frankel, Technical Advisor

C. Robert Deroy, Evaluator (Computer Science)

Michael J. O'Dell, Social Science Analyst

Request for copies of GAO reports should be sent to:

U.S. General Accounting Office  
Post Office Box 6015  
Gaithersburg, Maryland 20877

Telephone 202-275-6241

The first five copies of each report are free. Additional copies are \$2.00 each.

There is a 25% discount on orders for 100 or more copies mailed to a single address.

Orders must be prepaid by cash or by check or money order made out to the Superintendent of Documents.